Notebook, N-05-01-02

This undated notebook was probably used sometime during the period 1901-1903, although it may have been used as early as 1900. All entries are by Edison. The book contains notes and drawings regarding ore surveys, assays, and ore separation experiments. Included are entries pertaining to the search for nickel and cobalt in the Sudbury district of Ontario, Canada, and in Litchfield County, Connecticut, for use in Edison's storage battery. Other items relate to separation tests on iron ore from the Dunderland region of Norway. The pages are unnumbered. Approximately 20 pages have been used.

XE-172 N-(05-01-02)

Ryan Ore. Sudbury Township

Miller 24 –
Lot 8 Con 3 Southern Land
prospect No 3 taken across pit 3 ft
below surface – probably 2 % Copper
No Nickel. ½ % Cobalt probably
or more

No 33 Ryan Lot 8 Conc 4
Sample from shaft dump about 0.12
Copper No Nickel or Cobalt

No 22 Lot 8 Con 3 Sample taken
from Quartz Vein in pit No 2
Nearly all pyrite – Nitt Sol yellow
green – No Cu or Ni or Co
but blending with Hydrozincite gives very
yellow – test for platinum etc –

No 25 Ryan Lot 8 Conc 3 Southern Land
prospect pit No 2 Taken across
pit = Nitt Sol comes yellow
Acid Chromate of K = No Ni Co or Cu
Test for Platinic – Hydrozincite
Nitt Change Color

No 26 Ryan Lot 8 Con 3
Northern end taken across outcrop
on Line 0 125 ft North.
Nitric Solution Reddish (Green) —
Nickel Nitl Sol. greenish 0.2 Copper
No Nickel — Hydroxyl — Sol little
yellowish —

29 Ryan Lot 8 Con 3
North end across showing
on line 80 South
Nitric Solution Reddish Nitl Sol yellow
Hydroxyl — Sol yellow —
no Ni Co ? ~~Lost~~ ~~plot~~ etc
No Ni or Cu

28 Ryan - Lot 8 Con 3
N end taken across showing
on Line 32 N 80' from base
line - ~~[illegible]~~ Nitl Sol greenish
Hydroxyl yellow No Cu or Ni

27 Ryan Lot 8 Con 3
Pit No 2 S dead from bottom
3 ft below surface 3 ft wide —
difficult to [illegible] the opening
Mostly pyrite — HCl HNO3 used
badly — Copper ably 2%
Ni or Co = Hydroxylam / yellow

31 Ryan - Graham Lot 8 Con 3
South lead Pit No 1 sample
across bottom 10 ft below
surface 7 ft wide —
perhaps 2% Cop Ni

33 Barnetto property Graham
Lot 7 Con 3 from dumps of
shaft 200 ft E of Ryan's property
on North block in Ryan's group
012 Copper Ni

(No 32 Mullen)

Ryan – Lot 8 Con 3 N. Land
Acres showing on Line
32 S 90 ft from base line –
Nitsol beautifully clean green
What does it's ? – No Ni –
Hydrozincite yellow solution –

30 Ryan Graham Lot 8 Con 3
South Lead Pit No 3 from
small stringers of ore
Cop 2 @ 12½ oz – The
ore at least / one % of
Nickel

Y Langhammer Little Rock Ark
No platinum –

~~S C Wing~~ A B Gordon
Sudbury pyrite ~~Bi Selfid~~
No Ni or Cop –

Ellers Property

No 34 – Water Lot 10 Con 2
~~adjoining~~ No 2 — Nat Sol yellow
No Ni or Copper –

N side of O'Connor's Claim
Nat Sol yellow No Ni or Cu –

Tailing from outcrop Vicinity –
O'Connors Claim – Nat Sol
yellow – No Ni or Cu

S side O'Connors claim
Nat Sol yellow No Ni or Cu

g a Boim
Dan Tran —
got his other Teller 20 lb box ore
little Cu — No platinum —

John T Hubbard Counsellor
Law Litchfield Con
Calco & pyrrhotite mixed 1/2 bulk
gang at least 1 1/2 % nickel
& 1 % Cop — Diorite —
good —

No 35 (M 22) Ollier Property
Water Lot 9 Con 4
2 ft across showing
on Lane 9 — 1/4 to 1/2 % Ni

analysis Co .77 Ni+Co .80 - Copper .25

Miller 14 Litchfield Nickel —

Strong Copper + probably 1 to 2%
Nickel — got Hydroxylamine test —

analysis Cu .14 Ni+Co — 0.182
Litchfield
Miller 12 — Say 1% Cu + 1/2% or less Nickel — proportion of Cu to Ni about same as 14 but quantity 1/4 or 1/8% —

analysis Cop .07 Ni+Co 1.70 Copper .20
1/3 gangue nickel
Miller 10 — Litchfield
Very strong Cu + Ni —
was short of Hydroxylamine
1 1/2% Ni I think — Very good ore
~~[illegible]~~

Miller 8 — 1/4 of Cu ~~[illegible]~~ Cant see any Ni — Analysis Cop .055 Ni .087

Miller 10 Litchfield trace Cu
Analysis Copper .039 Ni .050

Mu[illegible]

Muller 11 - 1/4 % Cu etc. trace Ni
Y. Ulmik —
Analysis Cu .063 Ni .050

Muller 9 - No Cu etc
Anylsis Cop .047 Ni .036

No 6 - Muller Trace Cu etc
Reg anylsis - .051 Copper .037 Nickel.

Muller 5 Strong Cu etc
2% or more. — Calcanadella
Ni 1/2 % Y. Ulmik — Anylsis Copper
1.71 NiCo 1.17 Copper 0.10
1/2 gangue in black —

Analysis Cu 0.59 NiCo .34

Muller 13 flask busted
NiCu 2 ds & over —
Sand ubent 1/4 of it — 1/4 to 1/2 % Dark

No 2 Dunderland Hem Crude not Conc treated Saturated Sulphurous acid in Water 48 hours — .0954 Phos

No 3 Dunderland Crude not Conc — 1/2 % H_2SO_4 — 60 hours — same solution 5 times bulk of ore in Cup .0028 Phos

XB Same Reg powdered good Ni green Soaked in ~~Hot~~ KOH 20% then Ethyl & poured off & put mushy on filter paper & dried — it was ~~clumpy~~ 942 to test swell — Good grid Cake too thin —

AX = Reg powdered Ni green soaked 3 hours 20% KOH pressed in cloth —

I put a lot washed Dundeland Mag & Hem mixed in Tea Saucer with 100 cc of 1/2 % HCl solution did not use all HCl put in 5 pm yesterday 2nd

Mag & Hem mixed.

No 4 Dundeland
1/2 % Sol HCl - 5 times bulk of material with Washed Crude Dundeland This sample taken out after being in C.C. solution 3½ hours
.160 Phos -

No 5 Dundeland Sample Taken 2 hour & 35 minutes after No 4 or 7 hours + 50 minutes from the start, -
.135 Phos

No 6. Dundeland ~~Sam~~ Sample Taken 17 hours after No 5, or 25 hours after the start,
.152 Phos

No 7 Is a new lot of Washed Dundeland Crude with both Mag & Hem - put in flat Saucer with ~~[illegible]~~ 100 cc 1/2 % Sol HCl. 17 hours. 84 grammes Ore, This would be about 14 lbs HCl to ton ore
.147 phos -

Apparently HCl NG
Reports or is allowed
up. doesn't run
Smoothly passes
the apparatus

No 8 Dundaland Same as No 4
but sample taken out after
37 hours soaking in solution —
.133

No 9 - Sample 50 hours after
soaking in same solution
.147

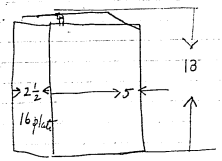
No 10 last run of No 4 ½ % HCl -
62 Hours in same solution 9
doesn't get any precip with HCl only but
put nitric in & heated, then no
change —
.188 Reports Evidently

II Dundaland Crude washed
was in weak Sl. soy for one
week about don't know how
strong acid was think it was
.0021 10% but only 2 or 3 times
back of that —
.0056

12 – Dundeland Cone made by Lehman – Hematite, about 1/4 lb – put in Lunge Berl. & 2½ liters bulk of 1/2 % H_2SO_4 – put in 30 hours, shaken about 3 times, 10 washed – .0038

13 – 100 grams Hematite Cone made by Lehman gbly .030 – put in pendulum tube, 100 cc of 1/2 % H_2SO_4 solution passed through several times, one portion in all input. about 20 hours total time, 10 washed –

Briquette made by glass new process, about a maximum 17 % of water –



Req cell-

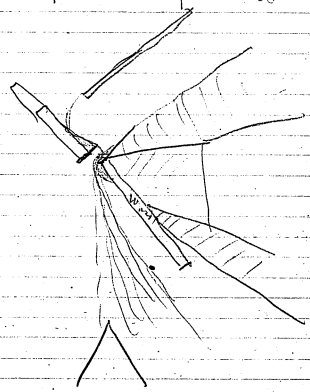
Miller

15	Prospect not [illegible] Specimen [illegible] not [illegible] [illegible] [illegible] [illegible] [illegible] Lichfield	.072	Ni
16	Prospect not [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]	.53	Co .10
17	[illegible]	.355	
18	[illegible]	.029	
19	on road between [illegible] not [illegible] [illegible] [illegible]	.029	
20	Not Tom [illegible]	.007	
21	Prospect not [illegible] Samples from [illegible]	.021	
22	[illegible]	.014	
23	[illegible]	.029	
24	[illegible]	.63	Co .20
25	[illegible]	.20	
26	PT [illegible]	.05	

Sock 23 [illegible] glass - it is apparently a Diorite or green rock but although today there is no trace of pyrites,

No 24 about 1/4 of the rock is pyrohotite -

A quick run by myself of Wrand.
15/1000 oz. saved from 2 ton lot reshipped
back to London by Dehwan
I arranged the Picaquet department



I first run it through once
Took the Tails & run them

3 times.

No 14 is the final Tails being The first Tails rerun ~~twice~~ (3) ~~again~~ times again — 16.88 —

15. Concentrate rerun 2nd time, .048
16 = " 3rd " 0.39
17 " 4 " 0.40
18 " 5 " 0.37
19 " 6 " 0.36
20 " 7 " 0.37
21 " 8 " 0.38
22 " 9 " 0.34
23 " 10 " 0.33

24 Is all the first tails, and all the tails from each rerun of Conc all mixed together + is the total tails that will go to dump — 22.85#

25 Is Nickel deposit Blackbird Mining dist Lemhi Co. near Salmon Idaho given By Gross Bro 624 State St Salt Lake City. it is a white shiloe clay like dark stuff full of apparently white specks.

25 Columbia Glossy alleged to show
4% Ni 13% Cobalt, & 2.90 Au
another 11% Ni 1.8 Cobalt,
1.8 Cop & $3. gold —
A Rough test by Nat shows no
nickel but apparently strong
Cobalt which may mask nickel,
& Cop — See Letter to Day
from Victor Heiker filed in
Nickel Box — pyrite after
Concentration & wash is now
Magnetic. There is 5% of magnetic
Thingy

No 26 =

Sample sent from Hampton
of Columbia Mines Co. placer Oregon
said to contain 20% nickel.
There is lots pyrites in it, tried
with Nitric + Nat. no nickel,
its glassy & looks like other ones.
lots Ni — may be Uranium or
something else. Its Curious —
Hallington says over 6% Ni
Ry Little Co — only Sulphide in Oregon
Regia — will give 2% to 3% soon —
DVD

No 26 Silica 7.74 %
Metallic Fe 28.31 %
Alumina 3.26
Metallic Nickel Co 6.58 %
Lime 5.66
Magnesia 4.20
Sulphur 36.98

Very slight Soluble in warm Nitric Sol in hot Aqua Reg
its & Cornwall Mineral C —

27 This is from Ray from Mine in S E Maine & Connecticut with letter of Mr Parker — It Cop mine owned by Boston parties. It Nickel-bearing Pyrites.
Ni + Co = 3.187 % =